MUNICIPAL INFRASTRUCTURE AND IDP HOUSING REHABILITATION PROJECT

COMPONENT 1 MUNICIPAL: ONI WATER SUPPLY IMPROVEMENT

ENVIRONMENTAL SCOPING STAKEHOLDER MEETING REPORT

CONTRACT: AID-EDH-I-00-08-00027-00, TASK ORDER: AID-114-TO-11-00002

17 September 2012

This document was produced for review by the United States Agency for International Development. It was prepared by Tetra Tech for the Municipal Infrastructure and IDP Housing Rehabilitation Project, Task Order number AID-114-TO-11-00002 under the USAID Architectural and Engineering (A&E IQC).

TETRA TECH

MUNICIPAL INFRASTRUCTURE AND IDP HOUSING REHABILITATION PROJECT

COMPONENT 1 MUNICIPAL: ONI WATER SUPPLY IMPROVEMENT ENVIRONMENTAL SCOPING STAKEHOLDER MEETING REPORT

CONTRACT: AID-EDH-I-00-08-00027-00, TASK ORDER: AID-114-TO-11-00002

17 September 2012

17 September 2012

Mr. Bradley Carr
Water Irrigation and Infrastructure Advisor
Office of Economic Growth
US Agency for International Development
11 George Balanchine Street
Tbilisi, 0131
Georgia

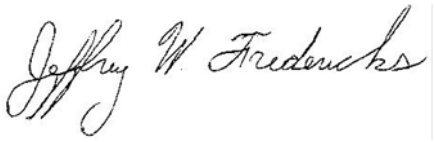
Re: Component 1 Municipal: Environmental Scoping Stakeholder Meeting Minutes for Oni Water Supply Improvement Sub-Project

Dear Mr. Carr:

This report is being submitted to you in accordance with the requirements of task order no. AID-114-TO-11-00002 of contract AID-EDH-I-00-08-00027-00. It provides Tetra Tech's Component 1 Municipal Oni Water Supply Improvement Sub-Project Environmental Scoping Stakeholder Meeting Report prepared under the Municipal Infrastructure and IDP Housing Rehabilitation Project. The meeting was held on 7 September 2012 in Oni.

We look forward to your review and welcome your comments and suggestions.

Very truly yours,



Jeffrey W. Fredericks, P.E., PhD
Chief of Party
Tetra Tech, Inc.
USAID/ Caucasus – Municipal Infrastructure and IDP Housing Rehabilitation Project (GMIP)
10th Floor, 154 Aghmashenebeli Ave.
Tbilisi, 0102, Georgia
Tel: +995322910401, Fax: +995322910401
Email: Jeff.Fredericks@tetratech.com

CC: USAID (George Kokochashvili); MDF (Kartlos Gviniashvili); Tetra Tech (Firouz Rooyani, Brian Potvin, Illia Eloshvili)

Table of Contents

Section **Page**

1. Stakeholder Meeting Minutes (Scoping)

1.1 Introduction

Municipal Development Fund (MDF) of Georgia and TetraTech, in coordination with the project sponsor USAID-Georgia and project beneficiary United Water Supply Company of Georgia (UWSCG), organized Environmental Scoping Stakeholder Meeting for the proposed Oni Water Supply Improvement Sub-Project under the Municipal Rehabilitation component of the Georgia Municipal infrastructure and IDP housing rehabilitation project (GMIP).

The stakeholder meeting was held on September 07, 2012 at 13:00 at the Gamgeoba Premises, Oni Municipality, Georgia. The aim of the meeting was to provide project stakeholders with the information regarding the sub-project, as well as to explain the technical as well as environmental issues important for the Environmental Assessment (EA) of Oni Water Supply Improvement Sub-Project to be implemented under GMIP.

1.2 Itinerary

Notice about the meeting was posted at the entrance of the Gamgeoba Premises few days before the meeting. Local self-governments' public information board was used to display the announcement informing the public about meeting purpose and location. In addition to this, UWSCG and its Service Center in Oni – the Government owned company in charge of the investment, operation and maintenance of the water supply networks in Georgia (except Tbilisi and Adjara) – the main beneficiary of the project component, were kindly requested to facilitate the invitation and participation of the project stakeholders, including its own staff concerned, as well as the representatives of the local self-government (various services of Oni Gamgeoba) and the local public.

The text of the public notice/announcement is provided in Annex A. Agenda of the meeting is reproduced in Annex B. Some photos documenting the meeting are provided in Annex C. List of invited and attending participants / the registration sheet are provided in Annex D. Copy of the presentation is attached as Annex E.

The meeting, including it question and answer sessions, was recorded in audio and webcam format, which is kept in project files. Presentation facilities at the meeting included overhead projector with PowerPoint file (in Georgian language). The meeting was logistically organized by MDF and TetraTech, while proceeding was facilitated by Mamuka Gvilava, environmental consultant of TetraTech, Georgia.

1.3 Presentations

After the presentation of the agenda and personal introduction of all participants the meeting was addressed on behalf of the project implementer by Mr. Kartlos Gviniashvili, MDF Coordinator for GMIP. He thanked and welcomed participants of the meeting.

With introductory statement the meeting was also addressed by Mr. Jeffrey Fredericks, USAID/TetraTech, GMIP Chief of Party. He described basic parameters of the project with over $50 million allocated by USAID to municipal, IDP and irrigation components of the project, explained rationale behind Oni Water Supply sub-project and the EA requirements due to USAID regulations. He welcomed Oni Municipality, MDF, UWSCG representatives as the participants and beneficiaries of the project, explained the purpose of the environmental meeting and briefly introduced the project organization and its municipal component in particular. Highlighted that GMIP is supporting at least two sub-projects in Oni: rehabilitation of Oni and water supply.

Technical description of the project was presented by Mr. Korneli Darsavelidze, design engineer from Georgia Water Project (GWP), engineering consultant to UWSCG for Oni Water Supply. He mentioned that GWP designed in 2012 Oni Water Supply Improvement sub-project. There are two sources of water supply to Oni, Zhizhoreti and Kvedrula systems. First one is just 20 l/sec flow supply, but is sometimes compromised by suspended particulates during Rioni flooding events. There is separate project for Zhizhoreti elaborated as well, including provision of chlorination, cleaning and covering filtrate manholes with roofs, fencing, guard house, etc. As for Kvedrula system, it entered into operation in 1970-s. Source is Karst waters, 25-40 l/sec, increasing to maximal rates during rainy events & season. Zhizhoreti only supplies lower elevations in Oni, therefore there is a need to improve situation with Kvedrula system. Planned measures include following: clearing water sources and rehabilitation including dealing with leakages. Pipeline of 9.3 km with dia 300 mm and 200 mm is supplied to Oni, without using existing damaged reservoir. Pipeline is not part of the project as this was not the task of the design ToR. Problem with current system is particulate pollution during rainy events and no capacity of regulation and storage. Existing reservoir is very dangerous and can not be filled with water due to imminent risk to population in case of failure. This reservoir never worked since 1970-s. Part of the proposed design is the water purification system, which would operate during water quality reduction events caused by suspended particulates. In other periods water is clean and no purification is required. Initial design included Finish and German systems, but their maintenance and operation was questionable, therefore simplest possible engineering solutions were advised. Initial idea was to build in the place of existing reservoir, even topography was surveyed in winter time, but after snow melted it became clear that reservoir is unfit and located where there is no place for chlorination and other facilities as well. The option proposed was to build purification infrastructure at the terrace just above Oni. Design includes pressure reduction unit, measurement unit, 2 vertical sedimentation units with 15 l/sec capacity and two quick filters, with capacity up to 17 l/sec. Design parameters for purification were calculated for 15 l/sec flows and 250 l/day per inhabitant. One filter will work and another will back-up. Purified water enters 1,000 cubic meter reservoir and in peak hours 30 l/sec can be supplied. Disinfection is through electrolysis method with active chlorine generation. Once water is clean the main pipeline is directly supplied to reservoir. During turbidity spikes purification system would be switched on. Treated water is supplied to 250 m distance new 300 mm pipeline across the pine forested slope to connect with the manhole located near old reservoirs from this point to connect with water distribution network. The proposed territory for treatment plant has access roads. As for the source water, no rehabilitation or demolition activities were planned there and this infrastructure will remain forever in the exiting location as a kind of ‘monument’.

Questions and Answers session followed the technical design presentation.

The following question was asked by Oni municipality representative: at Zhizhoreti is it planned to change asbestos-cement piping system? These asbestos-cement pipes are in bad condition and there are frequent repairs needed and without changing them we will have a problem with supplying water for Oni.

Feedback was provided by the presenter that asbestos-cement pipes are operating in Zhinvali, in Tbilisi and in many international systems and this is not problematic. Filter is operations at Zhizhoreti and has no problem.

Another question was raised that 15 l/sec is not sufficient for Oni in summer during summer time recreation and holiday visitors, when population of Oni triples, with population number surging up to 10,000.

Response provided by technical expert was that 15 l/sec is only during pollution events; otherwise up to 40-50 l/sec can be supplied to Oni. The Explanatory Note to the design provides that Oni population doubles in summer and we agreed with UWSCG 250 l/day parameter instead of regularly defined 160 l/day elsewhere (for instance in Khashuri and Surami). Chlorination is considered for 50 l /sec capacity. So this is the regular rate of supply and during pollution events only the purification is needed. Increasing this capacity to 30 l/sec would dramatically increase the cost of construction and operation.

UWSCG also responded that during spring and autumn due to suspended particulates water needs purification (some 1 month period), but during August water is clean, therefore visitors will not be affected by water shortage.

Question was again asked whether this is only water purification project and not water source capacity increase project. This could leave the town with future problem of quantity of water rather than quality only.

Presenter clarified that according to terms of reference the task was to purify water from particulates during precipitation events and to provide disinfection as well. Water metering could be the solution for water quantity.

Environmental scoping of the Oni water supply sub-project was presented by Mr. Mamuka Gvilava, Environmental Specialist of TetraTech, Georgia. Substance of the presentation was concerned with scoping issues such as potential project alternatives, key environmental issues of the project component to be considered in EA, etc. Presentation was closely following the PowerPoint file, which is reproduced in Annex E. After the presentation of the environmental scoping issues the presenter invited participants to raise their questions (Q&A session is reproduced in the next subsection). The presenter than facilitated the discussion session with stakeholders to identify and/or confirm key environmental issues. Results of this discussion are reported in the subsequent sub-section further below.

1.4 Questions & Answers

The participants were invited to raise their questions.

Question. *Design engineer commented the need for construction norms and rules which are now missing in Georgia. In 2006 Sanitary Protection Zones were legislated and this resolved many questions. Now we need similar rules and norms for environmental protection. Second issue is related to potential loss of water source; please clarify what is meant under such impact on water supply?*

Response. Presenter responded that potential impact mentioned is of land use nature, not hydrogeological conditions. As for the norms and rules, this is the issue for UWSCG to deal with in future, but EA is the instrument to analyze legal and institutional issues and in case of deficiencies to provide respective plan of action and mitigations both to address construction as well as operation/maintenance periods. EA provisions will be obligatory for contractor as well as operator of the facility. Issues of legislative nature can not be resolved with single project, but UWSCG was urged to work with Ministry of Environment Protection to include water supply projects into the list of project subject to EIA per Georgian legislation – this will only be beneficial for their operations.

Question. *Sanitary zone is or not of the part of the project?*

Response. Design consultant responded that purification systems will be fenced with fences with concrete foundations, and guard house and guard will be provided. Even 'birds' would not be able to penetrate.

Environmental consultant noticed that land use regulations are required to provide for long term sustainability of the water source.

Question. *At Zhizhoreti there is road passing. Currently both cows and people can enter. There is a need of sanitary zone delimitation/enforcement and fencing there.*

Response. Environmental consultant intervened that this project is not concerned with Zhizhoreti, unless there is need for analysis for potential connection with planned activities via indirect impacts. USAID's GMIP is not supporting activities at Zhizhoreti.

Response. Technical design consultant also responded that Zhizhoreti is so called 'reserved' source. There is a separate project of UWSCG which includes sanitary zone, chlorination and fencing including guard's house. UWSCG representative confirmed this and also that this project is not considered under GMIP, rather it is a separate activity of UWSCG. Road relocation is an issue there as well, since sanitary zone will require separate construction of bypass road for population.

This concluded the Q&A session for environmental scoping presentation.

1.5 Discussions

Facilitator of the meeting invited participants to elaborate their opinion with regard to the pre-selected issues displayed on screen using PowerPoint projector.

Discussion issues. *What are the expected problems associated with the planned rehabilitation?*

Feedback of stakeholders. Design consultant mentioned noise and potential spillages and other impacts from heavy construction equipment.

Representative of local heritage society did not exclude the possibility of archeological finding at this proposed territory. Preparedness for archeological chance finds needs to be considered. As for Japaridze museum, it does not have official status.

Discussion issues. *What are the benefits to local citizens?*

Feedback of stakeholders. Better water supply for Oni, employment opportunities. Design consultant was asked to elaborate on planned numbers of employed people and at peak of construction it was agreed that equals up to 50 persons for couple of months. So this project will not solve at large employment problem in Oni. Local workforce maximization was kindly requested, but this is probably up to prospective contractor. During exploitation several personnel would be employed continuously (4-5 persons).

Question. *What impact will the rehabilitation have on surface waters, wetlands, and local ecosystems?*

Feedback of stakeholders. No sensitive ecosystems could be reported in the location. One concern was mentioned the potential leakage from reservoir. No reservoir is free from leakage and if this will be significant, geotechnical instability can be a concern. But design consultant was not concerned with this issue.

Discussion issues. *What is happening to the quality of the soil and land resources in the area? Would these (and how would these) be affected by water system improvements?*

Feedback of stakeholders. No issue was identified by present audience, even with grazing, but environmental consultant mentioned that he witnessed grazing himself during the filed visit to proposed reservoir location. Current and future land uses around the water source catchment areas should be of concern as well.

Discussion issues. *Are there any current problems with pathogens or water-borne diseases? Would this be affected by water system improvements?*

Feedback of stakeholders. Head of Kutaisi/Tskaltubo regional laboratory was not concerned with bacterial pollution. Only nuisance is with turbidity. Oni representatives still considered this as significant nuisance and concern for local population as it is legitimate if they might be suspicious during turbidity events how harmful this water is. Head of laboratory advised to use water for ‘technical’ purposes during these episodes.

At the initiative of the environmental consultant it was agreed that MDF will officially write to UWSCG requesting available water quality time series and location information, preferably in electronic format.

NB: *MDF should write and submit this letter ASAP.*

NB: *One SC Head was requested to document turbid episodes with photographs.*

Technical design consultant mentioned that according to ToR 90 mg/l turbidity was requested to treat, but in reality design engineers accounted for 250 mg/l initial turbidity, with sedimentation system reducing it to 12 mg/l and after purification filters the water would be just pure. Environmental consultant still kindly asked for monitoring results, so that improvements can be documented and confirmed.

Question. *What are the long-term prospects for maintaining improvements? Who will maintain them and How? Who will pay for maintenance?*

Feedback of stakeholders. UWSCG informed that now land belongs to local authority, but after rehabilitation it will be handed over to UWSCG, which will operate the facility. MDF informed that O&M manual will be produced as part of the project. Design consultant confirmed that it is very important to have proper arrangements for O&M. Oni alone will not be able to operate, so UWSCG support is needed to guarantee O&M with proper funding. UWSCG mentioned that its capacity is improving and doubts are less today than few years ago, but in general no-one is immune from institutional changes.

Discussion issues. *Are there differences in men's and women's roles and relationships that may affect the long-term future of the municipal improvements and the environment?*

Feedback of stakeholders. Women will be clear beneficiaries, because during this 1 month period of turbidity even washing machine can not be operated. It was also mentioned with satisfaction that gender equality was clearly facilitated with equal representation at this consultation meeting.

Discussion issues. *What realistically may happen when the project ends? What will the project area look like in 30 years?*

Feedback of stakeholders. Environmental consultant highlighted importance of this issue considering failure with existing reservoir. UWSCG representative stressed that company is committed to further improve its operations, and looks like from today's perspective the company will be able to properly operate the system.

Design consultant also brought the issue of engineering heritage of Georgia, reminding the example of historical water supply in Vardzia in 11th century. Environmental consultant welcomed such an approach and called for some changes in design so that visual impacts of the proposed project can be mitigated, showing example of simple landscaping tool used in Oni Orion hotel. Another example brought was to use local architecture for ancillary infrastructure, also to provide blending color for fencing.

Last but not least, the consultant highlighted ultimate importance of Heath and Safety issues demonstrating this with the TV media still image taken from recent water supply system visit by high level officials: non of the officials were carrying proper PPE, while one high level official indeed was filmed in extremely dangerous situation (sitting on 4-5 m high concrete pouring wooden pile). All stakeholders were strongly urged not to allow site entry without proper safety measures. Situation should not be repeated during USAID funded project as well as for any other UWASG project implementation.

Safety First!

This concluded the discussion session and the meeting. Organizers thanked local stakeholders for active participation in this very informative meeting.

1.6 Conclusions

Meeting lasted from 13:00 to 15:00. It was well attended and organized as planned (with few exceptions) and was very substantive. Participants were represented by various stakeholders, including representatives of Operator Company, local communities as well as local government authorities. Unfortunately MDF and UWSC environmental management personnel were missing at the meeting despite advanced invitation and confirmed commitment to come. Atmosphere at the meeting was quite relaxed; all those wishing to express their opinion were readily given such an opportunity. Female were at least 30% of participants. Meeting was facilitated by TetraTech environmental specialist, with moderating back-up by MDF GIMP Coordinator. Project management was well represented by TetraTech team and key MDF representative in charge of GMIP. Meeting room was kindly provided by local authority. Due to some construction works in the central square of Oni some noise was clearly the nuisance during the meeting. GMIP project can avoid similar nuisances for population of Oni as much as possible by planning proper mitigation measures throughout EA process.

ANNEX A. Announcements

Text of the announcement displayed at the entrance of the Oni Gamgeoba Building:

ANNOUNCEMENT

USAID funded GMIP Project, Municipal Component

Oni Water Supply Improvement Project

Stakeholder Meeting (Environmental Scoping)

Municipality Gamgeoba Building, 1, Agmashenebeli Street, Oni

13:00, Friday, 7 September 2012

Municipal Development Fund of Georgia is pleased to announce that the stakeholder meeting to discuss the environmental scoping of the Oni Water Supply Improvement sub-project under the USAID funded Municipal Infrastructure Rehabilitation Project (GMIP) will be held on Friday, 7 September 2011 at 13.00, at the meeting room of the Oni Municipality Gamgeoba, at the address 1, Agmashenebeli Street, Oni.

Proposed GMIP sub-project comprises the construction of the water supply treatment plant and distribution reservoir in Oni. The meeting will discuss the technical aspects, as well as will consult with stakeholders on issues important for environmental scoping of this sub-project. Those interested to participate should contact meeting organizers at the address and contacts indicated below.

Municipal Development Fund of Georgia
Nino Patarashvili, Project Officer
150 Agmashenebeli Ave., 0112, Tbilisi, Georgia
Mobile: +995 (599) 38 22 92
E-mail: npatarashvili@mdf.org.ge

Tetra Tech/USAID - Municipal Infrastructure and IDP Housing Rehabilitation Project
Mamuka Shaorshadze
Environment, Health and Safety Specialist
154, Agmashenebeli Ave., 0112, Tbilisi, Georgia
Mob: +995 (595) 11 60 71
E-mail: mamuka.shaorshadze@tetratech.ge

ANNEX B. Agenda

Agenda of the Stakeholder Meeting:

AGENDA

USAID funded GMIP Project, Irrigation Component

Oni Water Supply Improvement Project

Stakeholder Meeting (Environmental Scoping)

Municipality Gamgeoba Building, 1, Agmashenebeli Street, Oni

13:00, Friday, 7 September 2012

1. Welcome and meeting objectives, introduction of all participants (Oni Municipality, UWSCG, MDF, USAID/TetraTech)

2. Introduction into technical aspects of Oni Water Supply Improvement Project (Korneli Darsavelidze, Chief Engineer, SakTskalProekti – Georgian Water Project)

3. Environmental scoping of the Oni Water Supply Improvement Project (Mamuka Gvilava, Environmental Specialist, TetraTech, Georgia)

4. Discussion on potential key environmental issues.

5. Conclusions and meeting closure (MDF, USAID/TetraTech)

ANNEX C. Photos

ANNEX D. Participants

List of Participants Pre-Work Meeting, Oni Internal Roads, September 7, 2012

	Name/Organization	Title	Signature
	USAID		
1	Brad Carr	Water, Irrigation, and Infrastructure Advisor	
2	Maya Chelidze	Acquisition Specialist	
3	George Kokochashvili	Engineering Specialist	
4	Gocha Lobzhanidze	Project Management Specialist	
	Tetra tech		
1	Jeffrey Fredericks	COP	
2	Vasil Apkhazava	QC/QA Specialist	
3	Mamuka Gvilava	Environmental Consultant	
4	Mamuka Shaorshadze	EHS Specialist	
5	Givi Varduashvili	IDP Housing Specialist	
6	Akaki Shubitidze	Road Engineer	
7	Maia Dali	Translator/Interpreter	
8	Anna Urotadze	Document Control Manager	
	Oni Municipality		
1	Temur Skhiereli	Chief Specialist, Architects Service	
2			
3			
4			
	Arnabi 21		
1	David Jgenti	Director	
2	Nugzar Mirimanov	Designer	
3	Valeri Garjava	Chief Engineer	
4	Giorgi Lobjanidze	Construction engineer	
5	Ilia Mtskhvetadze	Environmental Specialist	
6		CQ Manager	
	MDF		
1	Merab Chivadze	Road Project Manager	
2	Vasil Pekhmashvili	Road Engineer	
3	Devna Gugeshashvili	Supervisor	
4	Kartlos Gviniashvili	Program Manager	
	Total	25 Persons	

List of Participants for Stakeholder Meeting Held on Sep 7, 2012 in Oni

	Name/Organization	Title	Signature
	MDF		
1	Kartlos Gviniashvili	Program Manager	
2	Nino Patarashvili	Resettlement and Environment	
	Local Authorities		
3	Giorgi Metreveli	Oni Municipality Envoy	
4	Mikheil Bidzishvili	Oni Acting Gamgebeli	
5	Givi Bendianishvili	Oni Municipality Head of Infrastructure Service	
6	Mamuka Metreveli	Oni Municipality Environmental Protection Service	
7	Makhvala Japaridze	Local NGO Representative	
8	Gia Berishvili	Chief Scientist of R. Japaridze Museum	
	UWSCG		
9	Gogi Andghuladze	Projects Department Chief Specialist	
10	Aleksandre Zabakhidze	Imereti, Racha-Lechkhumi Regional Manager	
11	Tinatin Zhizhilashvili	Resettlement and Environment Division	
12	Khatuna Nebieridze	Laboratory Specialist	
13	Misha Lobzhanidze	Oni Service Center Manager	
14	Zaza Japaridze	Technical Department Head	
	Georgia Water Project		
15	Korneli Darsavelidze	Chief Engineer	
	Tetra tech		
16	Jeffrey Fredericks	COP	
17	Teimuraz Levanishvili	Housing Rehabilitation Manager	
18	Givi Varduashvili	Civil Engineer	
19	Mamuka Gvilava	Environmental Consultant	
20	Mamuka Shaorshadze	EHS Specialist	
21	Vasil Apkhazava	QA/QC Specialist	
22	Kako Shubitidze	Roads Engineer	
23	Koba Tsiramua	Regional Engineer	
24	Avtandil Baramia	Construction Oversight Engineer	
	Total	**Persons 24**	

ANNEX E. Presentation

USAID | GEORGIA

Municipal Infrastructure and IDP Housing Rehabilitation Project (GMIP)

Oni Water Supply Improvement Subproject

Stakeholder Meeting (Environmental Scoping)

September 7, 2011

USAID | GEORGIA

Objectives of the meeting:

- Introduction into GIMP
- Technical aspects, Oni water supply project
- Environmental Scoping of Oni water supply
- Discussion on potential key environmental issues to be addressed in the EA

USAID | GEORGIA

Municipal Infrastructure and IDP Housing Rehabilitation Project

USAID | GEORGIA

Municipal Infrastructure and IDP Housing Rehabilitation Project

Implementation: Municipal Development Fund

Subproject: United Water Supply Company & Georgia Water Project

Engineering oversight: Tetra Tech

Donor: USAID

USAID | GEORGIA

Location: Oni Municipality of Georgia

USAID | GEORGIA

Map: Schematic Layout of Oni Water Supply

USAID | GEORGIA

Main features of Oni Water Supply:

- Sources:
  - Karst spring source at Kvedi (~80%)
  - River Rioni filtrate at Zhizhoreti (~20%)
- Delivery:
  - 9.3 km pipeline from Kvedi to Oni
  - 2 km pipeline from Zhizhoreti to Oni
  - No treatment, no buffering reservoir

USAID | GEORGIA

Oni Water Supply: Environmental SCREENING

National environmental requirements:

- EA not required (Law on Env. Impact)

International environmental requirements:

- EA required (US Federal Regulation 216)

USAID | GEORGIA

Oni Water Supply: Environmental SCOPING

- Define alternatives
- A determination of the scope and significance of issues to be analyzed in the EA
- Elimination from detailed study of the issues that are not significant
- Establish implementation schedule
- Define EA structure & methodology

USAID | GEORGIA

ALTERNATIVES

Alternative 1: no action

- quality of life not improved / lost opportunity

Alternative 2: proposed action

- feasible

Alternative 3: groundwater source

- high cost / reliable electricity

USAID | GEORGIA

Map: Planned rehabilitation and construction

USAID | GEORGIA

Main activities of Oni water improvement:

- Repair of existing source at Kvedi:
  - Manual repair of trapezoidal structure & chambers
- Build new water treatment plant in Oni:
  - Pressure regulator well (16 am), setting basin (d=4.3m, h=3.9m), high rate filter (5mx6m, d=3.3m), well with pumps, concrete chlorination chamber (8.2mx6.4m, h=3.3m), manholes, pipelines (several hundred m), etc.
- Construct new storage reservoir in Oni:
  - dia=18m, depth=4.8m, volume=1000 m³

USAID | GEORGIA

Potentially significant IMPACTS (both for construction & for operation):

Deterioration of upstream ecosystem that could result in contamination of Oni's Karst water source.

- Identify upstream land use and determine land use requirements.

USAID | GEORGIA

Potentially significant IMPACTS (both for construction & for operation):

Impacts to threatened, endangered, and protected species. Disruption of sensitive ecological habitats.

- Identify presence of TES and/or sensitive habitat. Determine possible short and long-term habitat alterations.

USAID | GEORGIA

Potentially significant IMPACTS (both for construction & for operation):

Impacts to cultural resources such as Revaz Japaridze Home-Museum.

- Identify cultural resources of importance in the vicinity of the projects and as appropriate for the specific resources, measures to remove or protect.

USAID | GEORGIA

Potentially significant IMPACTS (both for construction & for operation):

Human health impacts due to poor drinking water quantity or quality.

- Identify chemical and biological contaminants in water; identify water quantity availability & water needs of Oni.

USAID | GEORGIA

Potentially significant IMPACTS (both for construction & for operation):

Visual and landscape impacts due to water supply structures.

- Define visual impact mitigation measures; redesign non-essential facilities of the treatment plant; screening & landscaping.

USAID | GEORGIA

Potentially significant IMPACTS (both for construction & for operation):

Cumulative impacts.

- Define and analyze potential for cumulative impacts in space and time.

USAID | GEORGIA

MILESTONES:

- Environmental Assessment: October, 2012
- Announcement of bidding: November, 2012
- Start of construction: Spring, 2013
- Completion of construction: 9 months

USAID | GEORGIA

CONTACTS:

Municipal Development Fund:

Nino Patarashvili, Environment and Resettlement
150 Agmashenebeli Ave., 0112, Tbilisi, Georgia
Mobile: +995 (599) 38 22 92
E-mail: npatarashvili@mdf.org.ge

Tetra Tech:

Mamuka Shaorshadze, Project EHS Specialist
154, Agmashenebeli Ave., 0112, Tbilisi, Georgia
Mobile: +995 (599) 11 60 71
E-mail: mamuka.shaorshadze@tetratech.ge

USAID | GEORGIA

QUESTIONS ?

USAID | GEORGIA

Potential environmental & social ISSUES

- What are the expected problems associated with the planned rehabilitation?

USAID | GEORGIA

Potential environmental & social ISSUES

- What are the benefits to local citizens?

USAID | GEORGIA

Potential environmental & social ISSUES

- What impact will the rehabilitation have on surface waters, wetlands, and local ecosystems?

USAID | GEORGIA

Potential environmental & social ISSUES

- What is happening to the quality of the soil and land resources in the area? Would these (and how would these) be affected by water system improvements?

USAID | GEORGIA

Potential environmental & social ISSUES

- Are there any current problems with pathogens or water-borne diseases? Would this be affected by water system improvements?

USAID | GEORGIA

Potential environmental & social ISSUES

- What are the long-term prospects for maintaining improvements?
- Who will maintain them and How?
- Who will pay for maintenance?

USAID | GEORGIA

Potential environmental & social ISSUES

- Are there differences in men's and women's roles and relationships that may affect the long-term future of the municipal improvements and the environment?

USAID | GEORGIA

Potential environmental & social ISSUES

- What realistically may happen when the project ends? What will the project area look like in 30 years?

USAID | GEORGIA

Safety First !..

USAID | GEORGIA

Thank you for participation !

USAID | GEORGIA

CONTACTS:

Municipal Development Fund:

Nino Patarashvili, Environment and Resettlement
150 Agmashenebeli Ave., 0112, Tbilisi, Georgia
Mobile: +995 (599) 38 22 92
E-mail: npatarashvili@mdf.org.ge

Tetra Tech:

Mamuka Shaorshadze, Project EHS Specialist
154, Agmashenebeli Ave., 0112, Tbilisi, Georgia
Mobile: +995 (599) 11 60 71
E-mail: mamuka.shaorshadze@tetratech.ge

US Agency for International Development
1300 Pennsylvania Avenue, NW
Washington, DC 20523
Tel: (202) 712-0000
Fax: (202) 216-3524
www.usaid.gov